

ICC-ES Evaluation Report

ESR-2026

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A Subsidiary of the International Code Council®

DIVISION: 08 00 00—OPENINGS
Section: 08 84 00—Plastic Glazing

REPORT HOLDER:

CRANE COMPOSITES, INC.

EVALUATION SUBJECT:

DURALITE®; DURALITE® HIGH STRENGTH; SUNSTRONG™ PRS; SUNSTRONG™ PRS HIGH STRENGTH; SUNSTRONG™ PRS CURTAINWALL; SUNSTRONG™ PRS CURTAINWALL HIGH STRENGTH; FIRE-RATED TYPE 25 CURTAINWALL; FIRE-RATED TYPE 25 HIGH STRENGTH CURTAINWALL AND ISO-TUFF FIRE RATED HIGH STRENGTH FIBERGLASS REINFORCED PLASTIC PANELS

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2009 *International Building Code*® (IBC)
- 2013 *Abu Dhabi International Building Code* (ADIBC)†

†The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

- Other codes (see Section 8.0)

Property evaluated:

Light-transmitting plastic

2.0 USES

The fiberglass reinforced plastic (FRP) panels recognized in this report comply with the requirements in IBC Section 2612.5 for FRP used as light-transmitting material. End use of the FRP panels is outside the scope of this report, thereby requiring compliance with the IBC requirements applicable to the end use (such as, but not limited to, structural, fire and durability performance). Such compliance must be demonstrated to the satisfaction of the code official.

3.0 DESCRIPTION

Duralite®, Duralite® High Strength, SunStrong™ PRS, SunStrong™ PRS High Strength, SunStrong™ PRS Curtainwall, SunStrong™ PRS Curtainwall High Strength, Fire-Rated Type 25 Curtainwall, Fire-Rated Type 25 High Strength Curtainwall and ISO-Tuff Fire Rated High Strength FRP panels are manufactured in a variety of profiles and a range of weights. The FRP panels consist of glass fiber reinforcement embedded within a polyester resin. The FRP panel weights, thicknesses and plastic classifications are provided in Table 1.

3.1 Duralite®:

A translucent or opaque corrugated FRP panel produced in a variety of different corrugations and manufactured in three weights. The FRP panel consists of an acrylic modified orthophthalic polyester resin and multidirectional chopped strand glass fiber reinforcement.

3.2 Duralite® High Strength:

A translucent or opaque corrugated FRP panel produced in a variety of different corrugations and manufactured in five weights. The FRP panel consists of an acrylic modified orthophthalic polyester resin with a combination of bidirectional woven roving and chopped strand glass fiber reinforcement.

3.3 SunStrong™ PRS:

A translucent corrugated FRP panel produced in a variety of different corrugations and manufactured in one weight. The FRP panel consists of a polymer resin with glass fiber reinforcement.

3.4 SunStrong™ PRS High Strength:

A translucent corrugated FRP panel produced in a variety of different corrugations and manufactured in one weight. The FRP panel consists of a polymer resin with a combination of bidirectional woven roving and chopped strand glass fiber reinforcement.

3.5 SunStrong™ PRS Curtainwall:

A translucent flat FRP product produced in one thickness. The FRP panel consists of a polymer resin with glass fiber reinforcement.

3.6 SunStrong™ PRS Curtainwall High Strength:

The same formulation as SunStrong PRS Curtainwall, but incorporating a woven reinforcement.

3.7 ISO-Tuff Fire-rated High Strength:

A translucent or opaque corrugated FRP panel produced in a variety of different corrugations and manufactured in five weights. The FRP panel consists of a brominated isophthalic resin with a combination of bidirectional woven roving and chopped strand glass fiber reinforcement.

3.8 Fire-Rated Type 25 Curtainwall:

A translucent flat FRP product produced in one thickness. The FRP panel consists of an orthophthalic brominated polyester resin and multidirectional chopped strand glass fiber reinforcement.

3.9 Fire-Rated Type 25 High Strength Curtainwall:

The same formulation as Fire-Rated Type 25 Curtainwall, but incorporating a woven reinforcement.

4.0 INSTALLATION

Use of the FRP panels is limited to applications permitted by IBC Section 2612.5 for light-transmitting materials.

5.0 CONDITIONS OF USE

The Crane Composites, Inc., FRP panels described in this report comply with, or are suitable alternatives to what is specified in, the code indicated in Section 1.0 of this report, subject to the following conditions:

- 5.1 The panels are manufactured and identified as described in this report and the IBC.
- 5.2 End use of the panels requires justification of compliance with the appropriate code requirements, including structural, fire and durability considerations, with the justification submitted to the code official for approval.
- 5.3 Use of the panels in fire-resistance-rated construction is outside the scope of this report.
- 5.4 The panels are produced by Crane Composites, Inc., in Florence, Kentucky, under a quality program with inspections by Farabaugh Engineering and Testing, Inc. (AA-715).

6.0 EVIDENCE SUBMITTED

- 6.1 Reports of testing in accordance with ASTM D635, ASTM D1929 and ASTM E84.
- 6.2 Quality documentation.

7.0 IDENTIFICATION

7.1 Each FRP panel described in this report must be identified by a label bearing the manufacturer’s name (Crane Composites, Inc.); manufacturing plant location (Florence, Kentucky); the name of the inspection agency (Farabaugh Engineering and Testing, Inc.), product name; date of manufacture; panel weight and/or thickness; plastic classification (CC1 or CC2); and the evaluation report number (ESR-2026).

7.2 The report holder’s contact information is the following:

CRANE COMPOSITES, INC.
23525 WEST EAMES STREET
CHANNAHON, ILLINOIS 60410
(815) 467-8950
www.cranecomposites.com

8.0 OTHER CODES

In addition to the codes referenced in Section 1.0, the products described in this report were evaluated for compliance with the requirements of the 2006 *International Building Code*® (2006 IBC).

The Crane Composites, Inc., FRP panels comply with the 2006 IBC as described in Sections 2.0 through 7.0 of this report, with the revisions noted below:

- Section 2.0: The FRP panels recognized in this report comply with the requirements in 2006 IBC Section 2606.4 for light-transmitting plastics.
- Section 4.0: Use of the FRP panels is limited to applications permitted by Chapter 26 of the 2006 IBC for light-transmitting plastics.

TABLE 1—MATERIAL DESCRIPTIONS AND PLASTIC CLASSIFICATIONS

PANEL SERIES	NOMINAL WEIGHT (ounces per square foot ±10%)	NOMINAL THICKNESS (inch)	PLASTIC CLASSIFICATION
Duralite®	8, 10 or 12	N/A	CC2
Duralite® High Strength	8, 10, 12, 14 or 16	N/A	CC2
SunStrong™ PRS	8	N/A	CC2
SunStrong™ PRS High Strength	8	N/A	CC2
SunStrong™ PRS Curtainwall	N/A	0.07	CC2
SunStrong™ PRS Curtainwall High Strength	N/A	0.07	CC2
Fire-Rated Type 25 Curtainwall	N/A	0.045	CC1
Fire-Rated Type 25 High Strength Curtainwall	N/A	0.06	CC1
ISO-Tuff Fire Rated High Strength	8, 10, 12, 14 or 16	N/A	CC1

For SI: 1 inch = 25.4 mm, 1 ounce/square foot = 305.1 g/m².